Appendix C
Correlated PM_{10} Concentrations and Winds

The following graphs illustrate the direct correlation between wind speeds[1] and PM_{10} concentrations at select monitoring sites within the Salton Sea Air Basin on June 26, 2014. Note a variety of instruments measure wind speed at different times during any given hour. Therefore, the following graphs reflect the hour of the wind measurement.

IMPERIAL COUNTY SELECT SITES
FIGURES C-1 to C-2

FIGURE C-1
BRAWLEY PM_{10} CONCENTRATION & WIND SPEED CORRELATION

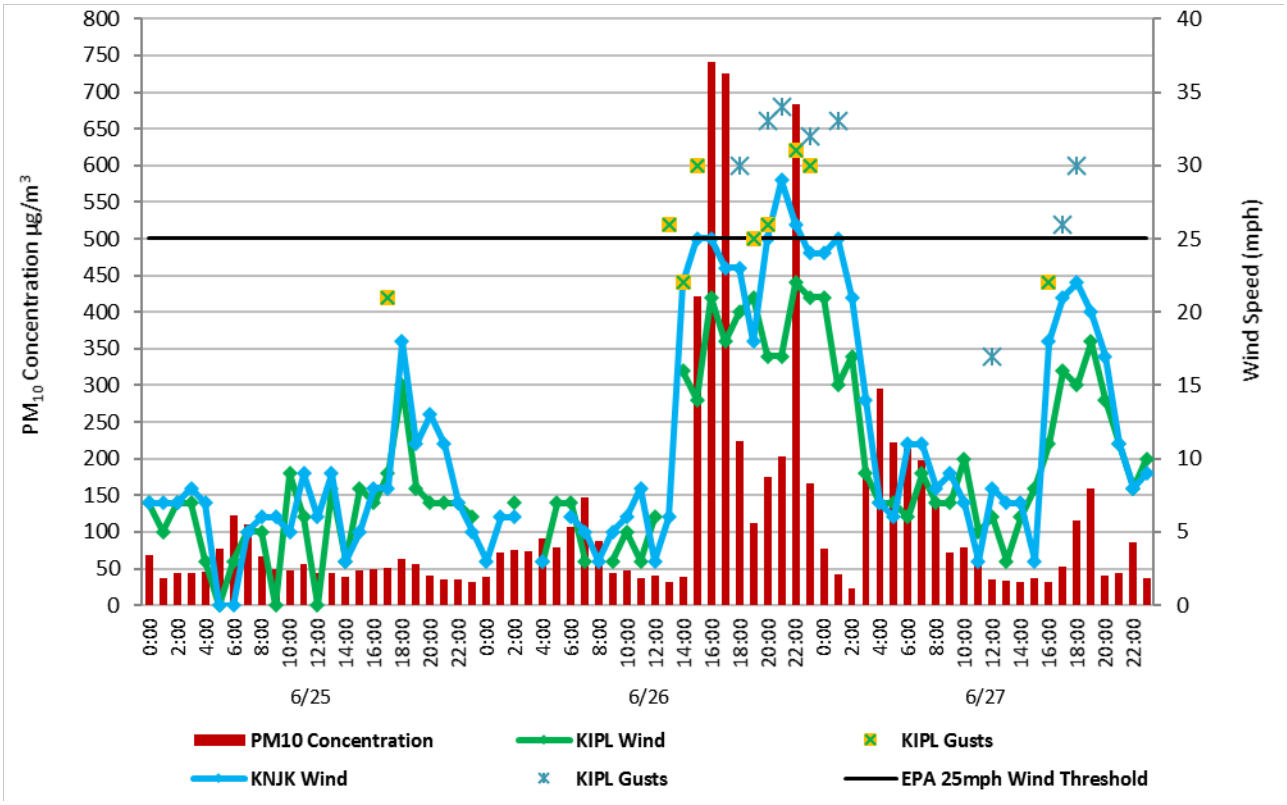

Fig C-1: Gusty winds on June 25, 2014 at upstream sites transported dust. Gusty winds resumed during the afternoon of June 26, 2014. This contributed to the exceedance measured by the Brawley monitor on June 26, 2014. Air quality data is from the EPA's AQS data bank. Wind data is from the NCEI'S QCLCD system

[1] National Weather Service; NOAA's Glossary – Wind Speed: The rate at which air is moving horizontally past a given point. It may be a 2-minute average speed (reported as wind speed) or an instantaneous speed (reported as a peak wind speed, wind gust, or squall); https://w1.weather.gov/glossary/index.php?letter=w

FIGURE C-2
NILAND PM_{10} CONCENTRATION & WIND SPEED CORRELATION

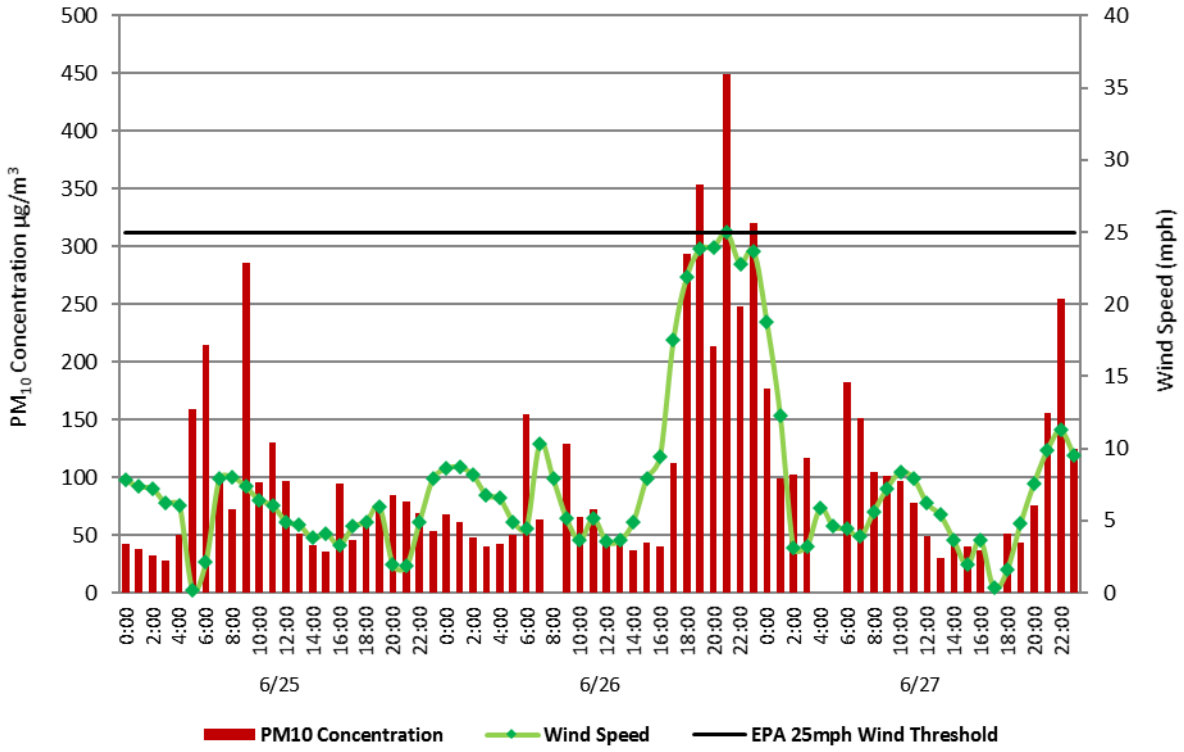

Fig C-2: Although Niland measured elevated winds on June 26, 2014, it was not enough to cause an exceedance. Air quality and wind data is from the EPA's AQS data bank

RIVERSIDE COUNTY MONITORING SITES

FIGURE C-3
INDIO (JACKSON ST) PM_{10} CONCENTRATION & WIND SPEED CORRELATION

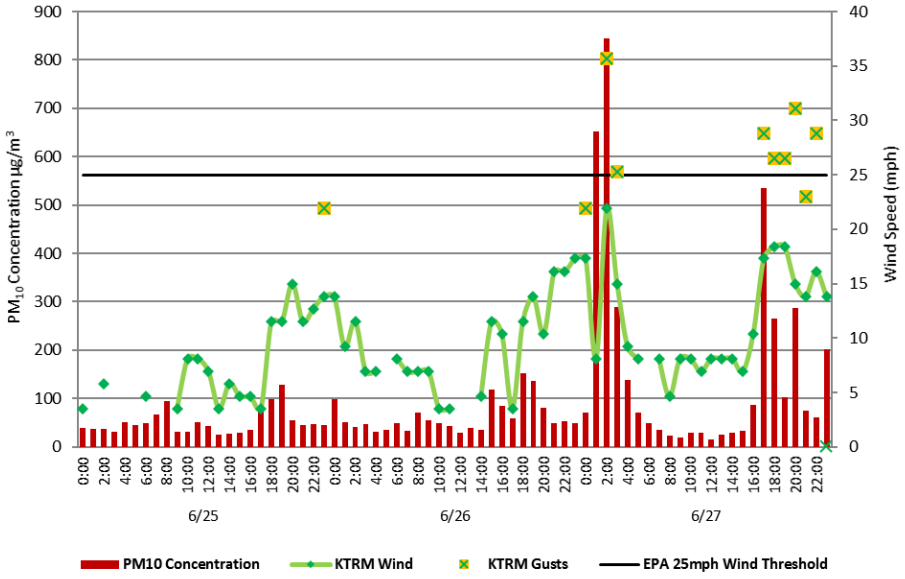

Fig C-3: Wind data is from Jacqueline Cochran Airport from the University of Utah's MesoWest system

FIGURE C-4
PALM SPRINGS FIRE STATION PM_{10} CONCENTRATION & WIND SPEED CORRELATION

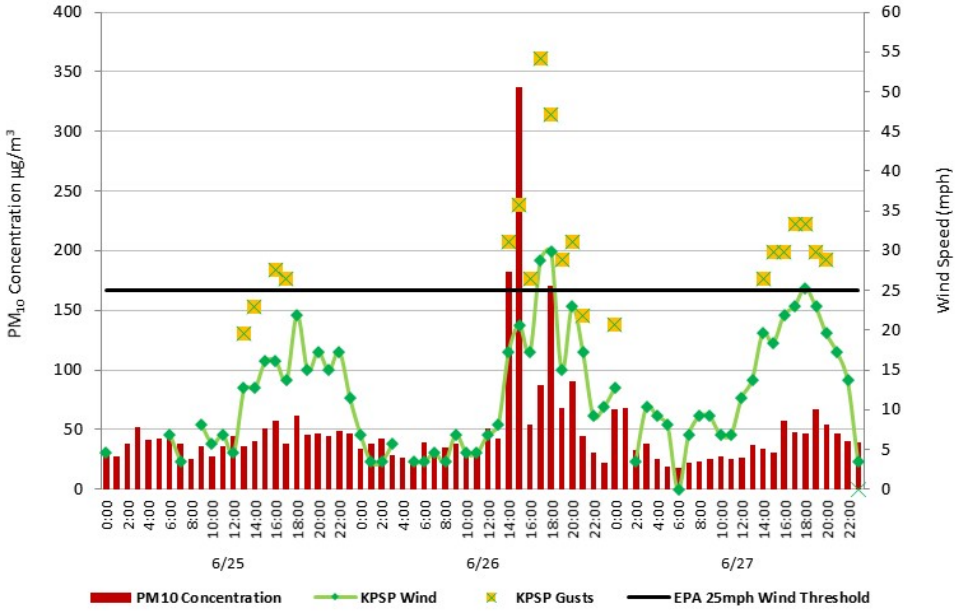

Fig C-4: Wind data is from Palm Springs Airport from the University of Utah's MesoWest system

FIGURE C-5
TORRES-MARTINEZ PM_{10} CONCENTRATION & WIND SPEED CORRELATION

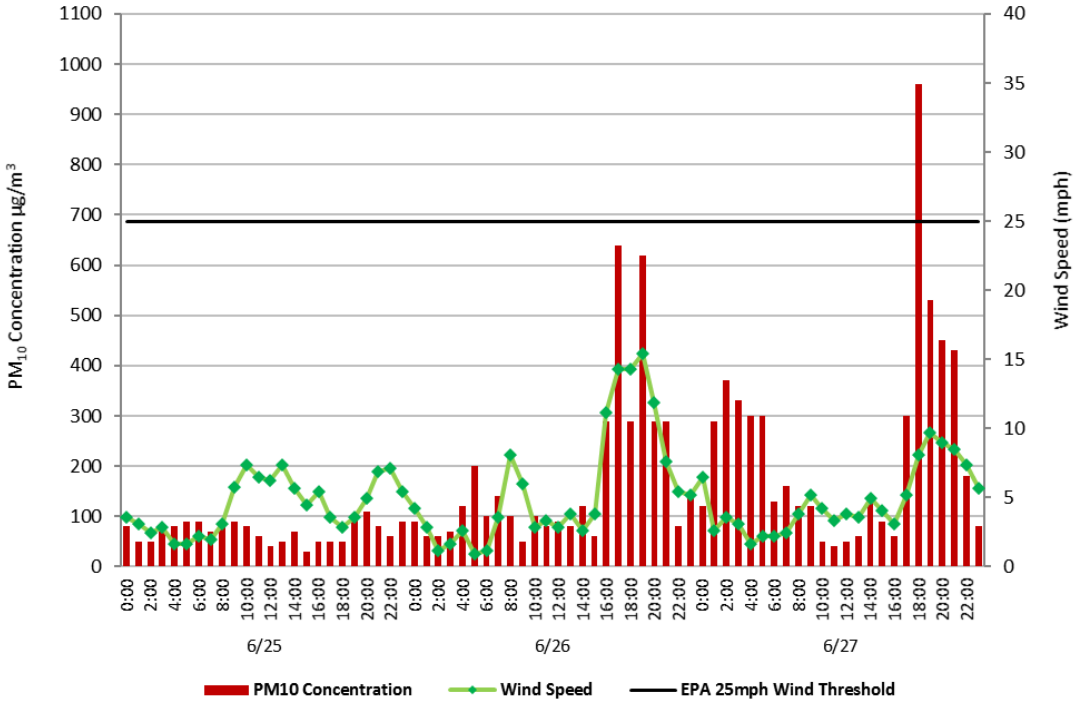

Fig C-5: Wind data for T-M Tribal is from the EPA's AQS data bank

SOUTHWESTERN ARIZONA

FIGURE C-6
YUMA, ARIZONA SUPERSITE PM_{10} CONCENTRATION & WIND SPEED CORRELATION

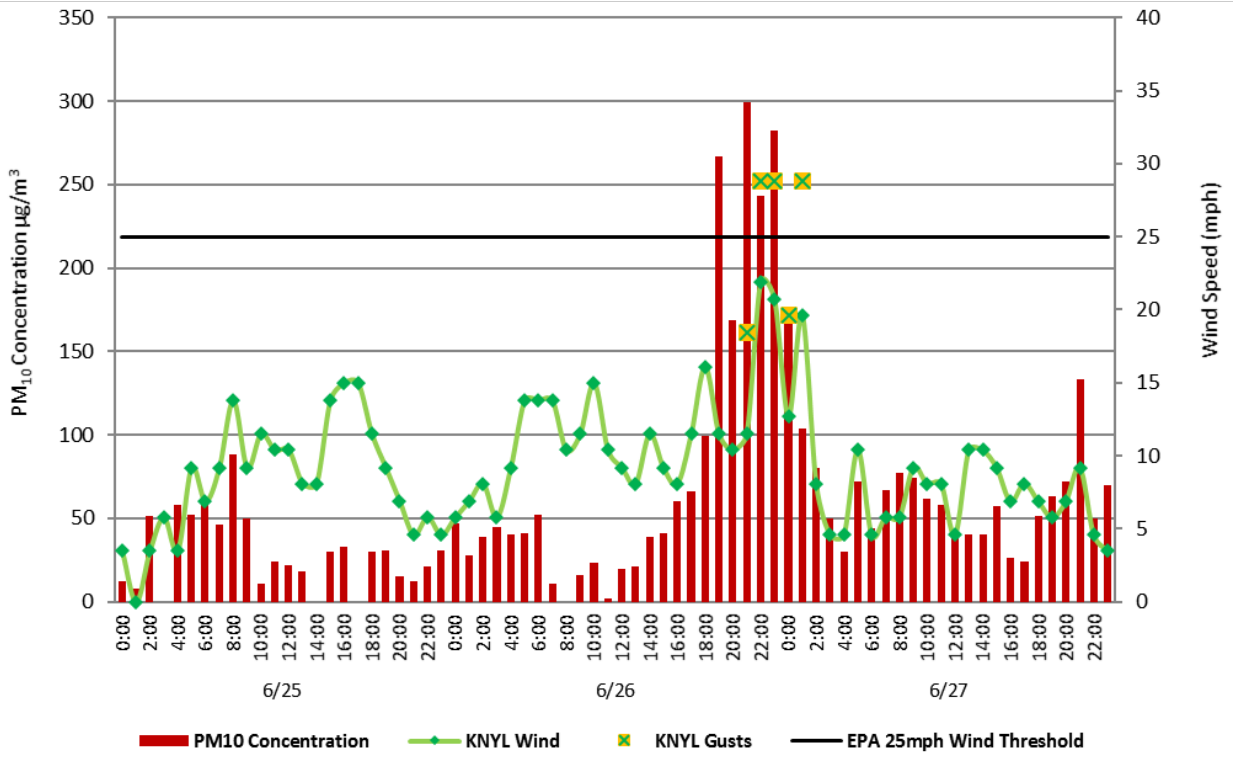

Fig C-6: Yuma monitoring site in southwestern Arizona saw corresponding increases in particulate matter as wind speeds increased June 26, 2014. This is later than at Brawley, which is to be expected since the Yuma Supersite is downwind of Brawley. The elevated particulate matter concentrations at sites in eastern Riverside County and southwestern Arizona demonstrate the regional impact of the wind event. Air quality data is from the EPA's AQS data bank. Wind data is from the University of Utah's MesoWest system